AMENDMENTS TO THE CLAIMS:

Please cancel claims 1 to 19 without prejudice and add the following claims 20 to 37:

Claims 1 to 19. (canceled)

20. (new) A method for inspecting a surface of a three-dimensional body, said method comprising the steps of:

a) moving at least one camera and at least one illuminating device relative to the surface of the three-dimensional body;

b) taking pictures of areas to be inspected on the surface during movement of the at least one camera relative to the surface of the three-dimensional body in step a); and

c) transmitting the pictures taken by the at least one camera in step b) to a computer and evaluating the pictures in the computer;

wherein the at least one camera, the at least one illumination device and the surface are brought into several respective different defined geometric relationships with each other during inspection of each of the areas to be inspected on the surface, at least for a time period required to take one of the pictures.

21. (new) The method as defined in claim 20, wherein the several respective different defined geometric relationships are determined by corresponding angles

between surface normals of the areas to be inspected and the at least one illumination device or the at least one camera or by corresponding distances between the areas to be inspected and the at least one illumination device or the at least one camera.

22. (new) The method as defined in claim 20, wherein said areas to be inspected are selected to be different-sized according to curvatures of the surface on which the areas to be inspected are located.

23. (new) The method as defined in claim 20, wherein at least one of the at least one camera, the at least one illumination device and the three-dimensional body is movable in one or more degrees of freedom.

24. (new) The method as defined in claim 20, wherein the at least one illumination device illuminates the surface to be inspected in a diffuse, directed or structured manner with sustained illumination and/or flash illumination.

25. (new) The method as defined in claim 20, wherein the at least one illumination device illuminates the surface to be inspected with at least one of an alternating dark field illumination, an alternating bright field illumination and a two-dimensional illumination.

26. (new) The method as defined in claim 20, wherein several of said pictures are taken of one of the areas on the surface to be inspected using various illumination situations and/or different camera settings.

27. (new) The method as defined in claim 20, wherein several cameras and several illumination devices are combined to form at least two subsystems that are movable relative to the surface to be inspected, said subsystems being interconnected via a communication interface, and an inspection result being created by the evaluating of the pictures from several or all of said subsystems.

28. (new) The method as defined in claim 20, wherein the evaluating of the pictures that were taken by the at least one camera employs image-evaluation algorithms stored in a computer system.

29. (new) The method as defined in claim 28, wherein during the evaluating of the pictures predetermined structures detected in the pictures are not identified as defects.

30. (new) The method as defined in claim 20, wherein relative positions between the areas on the surface to be inspected and the at least one camera and/or the at least one illumination device are detected, and said pictures are taken with a controlled resolution, position and/or time according to the relative positions.

31. (new) The method as defined in claim 20, wherein specified areas to be inspected on the surface are examined with different settings of the respective different defined geometric relationships, of illumination from the at least one illumination device and/or of image-processing parameters.

32. (new) A system for inspecting a surface of a three-dimensional object, said system comprising

at least one camera for taking pictures of areas to be inspected on the surface;

at least one illumination device for illuminating the areas to be inspected;

at least one displacement device that moves the at least one camera, the at least one illumination device and the three-dimensional body relative to each other;

an evaluation unit for evaluating the pictures taken by the at least one camera; and

a control device for bringing the at least one camera, the at least one illumination device and the surface to be inspected into respective different defined geometric relationships with each other during the inspecting of each of the areas to be inspected on the surface, at least for a time period required to take one of the pictures.

33. (new) The system as defined in claim 32, including a single inspection unit in which said at least one camera and said at least one illumination device is located.

34. (new) The system as defined in claim 32, including several cameras, several illumination devices and separate inspection units, and wherein the separate inspective units each include at least one of the several cameras and at least one of the several illumination devices and represent separate subsystems.

35. (new) The system as defined in claim 34, wherein said separate subsystems include at least one stationary subsystem and at least one movable subsystem.

36. (new) The system as defined in claim 32, wherein said at least one camera is calibrated three-dimensionally.

37. (new) The system as defined in claim 32, wherein said at least one camera is calibrated with reference to the at least one illumination device, the three-dimensional body and/or the at least one displacement device.